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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/960,503 | 09/24/2001 | Takayuki Shimizu | 1614.1192 | 7233 |

21171 7590 11/03/2004

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

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| EXAMINER |
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NGUYEN, CHAU M

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| ART UNIT | PAPER NUMBER |
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2633

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 09/960,503 | | SHIMIZU, TAKAYUKI | |
| | Examiner | | Art Unit | |
| | Chau M Nguyen | | 2633 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on August 12, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>092401</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the Amendment (Restriction) filed on August 16, 2004.
2. Applicant's election without traverse of Group I, which includes claims 1, 2, 6 and 7, is acknowledged.
3. Claims 3, 4 and 5 have been cancelled.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsuoka et al. (Hereinafter "Matsuoka") (U.S. Pat. No. 6,563,978 B2)

As claim 1, Matsuoka disclose a (Wavelength Division Multiplex) terminal device located in a WDM network, through which a plurality of client signals are transmitted with their wavelengths being multiplexed, said WDM terminal device comprising:

a first compensator (23, fig. 5, col. 1, lines 39-40 and col. 6, lines 13-16) that collectively compensates dispersion of each wavelength (λ_1' , λ_2' , ..., λ_4') of a first plurality

of client signals received through the WDM network with their wavelengths being multiplexed;

a transmission amplifier (34) that collectively adjusts levels of said first plurality of client signals (col. 6, lines 16-18); and

a coupler (multiplexing unit) (5, col. , lines 19-20) that multiplexes a wavelength of a client signal having a single wavelength (one of λ_5 - λ_{16}) or a wavelength of at least one of a second plurality of client signals (λ_5 , λ_6 , ..., and λ_{16}) whose wavelengths are multiplexed, to wavelengths of said first plurality of client signals (λ_1' , λ_2' , ..., λ_4'), and transmits said first plurality of client signals (col. 6, lines 21-24).

As claim 2, the WDM terminal device of Matsuoka as described in claim 1, further comprising:

a separating unit (4', fig. 5, col. 5, lines 60-65) that separates a third plurality of client signals (λ_1 , λ_2 , ..., λ_4) to be transmitted to one place, from a fourth plurality of client signals (λ_5 - λ_{16}) received with their wavelengths being multiplexed, keeping wavelengths of said third plurality of client signals multiplexed;

a second compensator (21) that collectively compensates dispersion of each wavelength of said third plurality of client signals (λ_1 , λ_2 , ..., λ_4) (col. 5, lines 64-66); and

a reception amplifier (36) that collectively adjusts levels of said third plurality of client signals, wherein said separating unit transmits said third plurality of client signals to said one place, keeping the wavelengths of said third plurality of client signals multiplexed (col. 5, line 67- col. 6, line 4).

As claim 6, Matsuoka discloses a WDM-ADM device located in a WDM network, through which a plurality of client signals are transmitted with their wavelengths being multiplexed, said WDM-ADM device comprising:

a first compensator (23, fig. 5, col. 6, lines 11-16) that collectively compensates dispersion of each wavelength of a first plurality of client signals (λ_1' , λ_2' , ..., λ_4') received through the WDM network with their wavelengths being multiplexed;

a transmission amplifier (34 and/or 3T) that collectively adjusts levels of said first plurality of client signals (col. 6, lines 16-18); and

an adding unit (5, col. 6, lines 11-14) that adds said first plurality of client signals (λ_1' , λ_2' , ..., λ_4') to a second plurality of client signals (λ_5 - λ_{16}) whose wavelengths are multiplexed, keeping the wavelengths of said first plurality of client signals multiplexed, and transmits said second plurality of client signals (col. 6, lines 21-24).

As claim 7, the WDM-ADM device of Matsuoka as described in claim 6, further comprising:

a dropping unit (4') that drops a third plurality of client signals (λ_1 , λ_2 , ..., λ_4) (col. 5, lines 64-66) to be transmitted to one place, from a fourth plurality of client signals (λ_5 - λ_{16}) received with their wavelengths being multiplexed, keeping wavelengths of said third plurality of client signals multiplexed (col. 5, lines 64-66);

a second compensator (21) that collectively compensates dispersion of each wavelength of said third plurality of client signals (λ_1 , λ_2 , ..., λ_4) (col. 5, line 67- col. 6, line 4); and

a reception amplifier (36) that collectively adjusts levels of said third plurality of client signals ($\lambda_1, \dots, \lambda_4$), wherein said dropping unit transmits said third plurality of client signals to said one place with the wavelengths of said third plurality of client signals being multiplexed (col. 5, line 67- col. 6, line 4).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hoag et al. (U.S. Pat. No. 5,721,936) is cited to show hybrid bi-directional three color wave division multiplexer and method using same.

Li (U.S. Pat. No. 5,999,290) is cited to show optical add/drop multiplexer having complementary stages.

Li et al. (U.S. Pat. No. 6,323,994 B1) is cited to show WDM system equalization with EDFA optical amplifiers

Cao (U.S. Pat. No. 6,731,877 B1) is cited to show high capacity ultra-long haul dispersion and linearity managed lightwave communication systems.

Zhou et al. (U.S. Pat. No. 6,445,850 B1) is cited to show method and apparatus for per-band structure with gap-free band structure for high speed DWDM transmission.

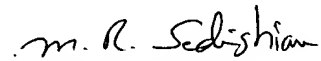
Stephens et al. (U.S. Pat. No. 6,388,782 B1) is cited to show multi-wavelength DWDM optical switching systems.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau M Nguyen whose telephone number is 571-272-3030. The examiner can normally be reached on Mon-Fri from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571-272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.M.N.
Oct. 20, 2004


M. R. SEDIGHIAN
PRIMARY EXAMINER